

Comparison of common PMI methods

MANIK TRADING technical reference table

Method	Capability	Primary limitation
Handheld XRF	Cr, Ni, Mo, Cu and many heavier elements	Generally does not report carbon
OES	Carbon and lighter elements with alloy chemistry	Spark mark, preparation and calibration required
LIBS	Rapid analysis with some light-element capability	Matrix/calibration and instrument method matter
Laboratory wet/combustion	Reference accuracy for selected elements	Sampling and longer turnaround
MTC review	Heat and mill test data	Does not by itself prove the item belongs to that heat

Source / basis: ASTM standards and practices relevant to material verification